

REMARKS

I. Double Patenting Rejections

Claims 1-9 were rejected on the grounds of non-statutory obviousness-type double patenting over various claims of U.S. Patent No. 6,658,438. In response to these rejections, Applicants submit herewith the appropriate terminal disclaimer and fee. In view of these submissions, Applicants respectfully submit that the non-statutory obviousness-type double patenting rejections have been overcome.

II. 35 U.S.C. §103(a) Rejections

Independent Claim 1 was rejected under 35 U.S.C. §103(a) as being obvious in view of the proposed combination of U.S. Patent No. 3,668,665 to Allen and U.S. Patent No. 6,377,526 to Vining et al. Independent Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as being obvious in view of the proposed combination of Allen, Vining et al., and “The Route to 3-D Chips” by Zhang. Applicants respectfully request reconsideration and withdrawal of these rejections for the reasons set forth below.

A. The Proposed Combination Does Not Yield the Claimed Invention

Independent Claims 1, 2, and 3 each recite: “(c) over-writing at least a portion of the stored digital file with a destructive pattern, said pattern switching at least some of the memory cells associated with the digital file to the programmed digital state.” In the Office Action, it was admitted that Allen does not disclose this element, and Vining et al. was relied upon in an attempt to cure this deficiency.¹ However, Vining et al. does not teach this element.

¹ As noted below, Zhang was relied upon in an attempt to cure an additional admitted deficiency with respect to independent Claims 2 and 3. Zhang does not teach this element.

Vining et al. teaches a “write-once” optical disk in which a spot on the disk (the purported memory cell) is programmed by heating a minute region of the disk recording layer at or above its Curie Temperature in the presence of a magnetic field. This causes the original digital state of the memory cell to be changed to a programmed digital state. Vining et al. takes advantage of this unique physical characteristic of the optical disk to reset a programmed digital state to an original digital state. By resetting a programmed digital state to an original digital state in the memory cells that store a file, the memory cells can be re-written with new data.

In contrast to Vining et al., which switches memory cells to the *original* digital state (from the programmed digital state), the methods in independent Claims 1, 2, and 3 recite switching memory cells to the *programmed* digital state. Accordingly, Vining et al. does not teach the claim element that is admittedly missing in Allen (indeed, Vining et al. teaches away from the claimed invention). As such, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of independent Claims 1, 2, and 3 and their dependent claims be removed.

B. There Is No Motivation to Combine Vining et al. with Allen or Zhang

Applicants respectfully submit that one skilled in the art would not have been motivated to combine Vining et al. with Allen or Zhang² because such a combination would change the basic operating principle of the references. Allen and Zhang disclose a solid-state memory device in which an electrical signal is used to program a memory cell. In contrast, Vining et al. is directed to an optical disk in which a memory cell is programmed by heating a minute region of the disk recording layer at or above its Curie Temperature in the presence of a magnetic field. It is this unique physical characteristic in Vining et al. that allows a programmed digital state to be

² Zhang was relied upon for a teaching of a three-dimensional memory array, which is recited in independent Claims 2 and 3. The Office Action admitted that the proposed combination of Allen and Vining et al. does not teach a three-dimensional memory array.

reset to the original digital state even though the disk is otherwise "write-once." Since Vining et al. is directed to a very different physical structure and arrangement as compared to Allen and Zhang, combining Vining et al. with either Allen or Zhang would require substantial modification that would alter the basic operating principle of each reference. Indeed, it is not clear that it would even be possible make the proposed combination given the very different physical structures and arrangements involved.

III. Conclusion

Because the proposed combination does not teach a method for deleting that involves switching memory cells from the original digital state to the programmed data state, as recited in the claims, and because there is no motivation to combine the references, Applicants respectfully submit that all rejections should be removed and that this application should be passed to allowance. If there are any questions concerning this Response, the Examiner is invited to contact the undersigned attorney at (312) 321-4719.

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Respectfully submitted,



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